

Title (en)

METHOD AND SYSTEM FOR PERFORMING SIMULTANEOUS LOCALIZATION AND MAPPING USING CONVOLUTIONAL IMAGE TRANSFORMATION

Title (de)

VERFAHREN UND SYSTEM ZUR GLEICHZEITIGEN LOKALISIERUNG UND KARTIERUNG UNTER VERWENDUNG EINER FALTUNGSBILDTRANSFORMATION

Title (fr)

PROCÉDÉ ET SYSTÈME PERMETTANT DE RÉALISER UN MAPPAGE ET UNE LOCALISATION SIMULTANÉES À L'AIDE D'UNE TRANSFORMATION D'IMAGE CONVOLUTIONNELLE

Publication

EP 3646244 A1 20200506 (EN)

Application

EP 18824287 A 20180627

Priority

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- US 2018039804 W 20180627

Abstract (en)

[origin: US2019005670A1] Augmented reality devices and methods for computing a homography based on two images. One method may include receiving a first image based on a first camera pose and a second image based on a second camera pose, generating a first point cloud based on the first image and a second point cloud based on the second image, providing the first point cloud and the second point cloud to a neural network, and generating, by the neural network, the homography based on the first point cloud and the second point cloud. The neural network may be trained by generating a plurality of points, determining a 3D trajectory, sampling the 3D trajectory to obtain camera poses viewing the points, projecting the points onto 2D planes, comparing a generated homography using the projected points to the ground-truth homography and modifying the neural network based on the comparison.

IPC 8 full level

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CPC (source: EP IL KR US)

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US 10726570 B2 20200728; **US 2019005670 A1 20190103**; AU 2018292610 A1 20191219; AU 2018292610 B2 20221117; CA 3066228 A1 20190103; CN 110799991 A 20200214; CN 110799991 B 20230905; EP 3646244 A1 20200506; EP 3646244 A4 20200930; IL 271519 A 20200227; IL 271519 B2 20230601; JP 2020526818 A 20200831; JP 2023082038 A 20230613; JP 7250709 B2 20230403; JP 7495546 B2 20240604; KR 102662201 B1 20240430; KR 20200024848 A 20200309; US 11238606 B2 20220201; US 2020302628 A1 20200924; WO 2019005999 A1 20190103

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